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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,660	08/11/2003	Shinichi Takahashi	50943-021	4069
20277	7590	05/30/2006	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			CHU, HELEN OK	
		ART UNIT	PAPER NUMBER	
		1745		

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/637,660	TAKAHASHI, SHINICHI
	<b>Examiner</b>	<b>Art Unit</b>
	Helen O. Chu	1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 May 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
  - 4a) Of the above claim(s) 7-31 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 11 August 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/112003</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election of claims 1-6 in the reply filed on May 10, 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Therefore claims 7-31 have been withdrawn from consideration

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Reiser (US Publication 2003/0207162 A1).

In regard to claim 1 and 5, the Reiser reference discloses a vehicle with a fuel cell system that comprises a fuel cell stack in series with the DC power supply that comprises a battery and auxiliary load which remains connected until the average voltage of the fuel cells is greater than zero volts at the time the controller transfers switch (Paragraph 18).

In regards to claim 3, it is well known in the art of fuel cells that a fuel cell stack comprises fuel cell units sandwiched between a pair of end plates, gas diffusion layers in contact with an membrane electrode assembly. It is also well known in the art that the membrane electrode assembly comprises an electrolyte sandwiched between electrodes.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reisner as applied to claims 1, 3, and 5 in further view of Edlund et al. (US Publication 2002/0114989 A1).

The Reisner reference discloses the fuel cell system as applied to claims 1, 3, and 5, however, the Reisner reference does not specifically teach a fuel cell system wherein an anode of the DC power supply is connected to an anode of the fuel cell stack, and a cathode of the DC supply is connected to a cathode of the fuel cell stack which are inherent properties of electrolysis. The Edmund et al. teaches electrolysis in a fuel cell system that produces hydrogen and is fed into the fuel cells as a fuel (Claim 20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate electrolysis into a fuel cell system to insure a steady feed stream of hydrogen into the fuel cell, hence, the fuel cell would be operable.

Art Unit: 1745

6. Claim 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reisner as applied to claims 1, 3, and 5 in further view of Leboe et al. (US Publication 2002/0168556 A1).

The Reisner reference discloses the fuel cell system as applied to claims 1, 3, and 5, however, the Reisner reference does not teach a motor vehicle with a battery charged by electric power from the fuel cell stack. The Leboe et al. reference entails the fuel cell delivers raw current into a converter, next, into a battery (Paragraph 36) and finally into load such as a system to drive a lift truck. The Leboe et al. reference teaches this fuel cell/battery power system are self-contained and integrated in small geometric space (Paragraph 35). Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to incorporate a the fuel cell/battery system as taught by Leboe et al. into the fuel cell system as taught by Reisner for compaction in a small vehicular space.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen O. Chu whose telephone number is (571) 272-5162. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HOC



DAH-WEIYUAN  
PRIMARY EXAMINER